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7590 09/12/2005			EXAMINER	
Zilka-Kotab, PC			AVELLINO, JOSEPH E	
P.O. Box 72112	20			
San Jose, CA 95172-1120			ART UNIT	PAPER NUMBER
			2143	
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/004,120	WOLFF ET AL.				
Office Action Summary	Examiner	Art Unit				
	Joseph E. Avellino	2143				
The MAILING DATE of this communication a Period for Reply	ppears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REF THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a r  - If NO period for reply is specified above, the maximum statutory perions  - Failure to reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the may earned patent term adjustment. See 37 CFR 1.704(b).	N.  1.136(a). In no event, however, may a reply be timely within the statutory minimum of thirty (30) days of will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE!	nely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 15	August 2005.					
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Disposition of Claims						
4) ⊠ Claim(s) <u>1-45</u> is/are pending in the application 4a) Of the above claim(s) is/are withd 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) <u>1-45</u> is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and	rawn from consideration.					
Application Papers						
9)☐ The specification is objected to by the Exami	ner.					
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the corr						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for forei  a) All b) Some * c) None of:  1. Certified copies of the priority docume  2. Certified copies of the priority docume  3. Copies of the certified copies of the priority docume  application from the International Burd  * See the attached detailed Office action for a least content of the priority documents.	ents have been received. ents have been received in Applicati riority documents have been receive eau (PCT Rule 17.2(a)).	on No ed in this National Stage				
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary Paper No(s)/Mail D	ate				
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date <u>8/15/05</u> .	08) 5)	atent Application (PTO-152)				

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#### **DETAILED ACTION**

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1. Claims 1-45 are pending in this examination; claims 1, 10, 16, 31, and 40 independent.

## Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

- 3. Claims 1-36 of commonly owned application no. 10/003,265 contains every element of claims 1-45 of the instant application and as such anticipates claims 1-45 of the instant application.
- 4. "A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. <u>In re Longi</u>, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); <u>In re Berg</u>, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of

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obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus)." ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Court, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

### Claim Rejections - 35 USC § 112

- 5. The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- Claims 31-45 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The disclosure does not describe a computer program product embodied in a computer readable medium. If this is an oversight by the Office, Applicant is invited to point out where in the disclosure it can be found that a computer program embodied in a computer-readable medium for configuring a load balancing device can be found.

## Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Claims 1-12, 16-27, and 31-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai et al. (USPN 6,760,765) (hereinafter Asai) in view of Hailpern et al. (USPN 6,275,937) (hereinafter Hailpern).

8. Referring to claim 1, Asai discloses a load balancing device (Figure 1, ref. 20) for balancing the load across a plurality of proxy devices (i.e. cache servers, Figure 1, ref. 101, 102, 10n), the computer network having a plurality of client devices (terminals, Figure 1, ref. 41-4n) arranged to issue access requests using a dedicated file access protocol to the file storage device (content server, ref. 30) in order to access files stored on the file storage device, and comprising:

a client interface for receiving an access request issued to the file storage device using the dedicated file access protocol (Figure 1, ref. 21; col. 12, lines 38-48);

load balancing logic for applying a predetermined load balancing routine to determine which proxy device to direct the access request (col. 15, line 66 to col. 16, line 56);

a proxy device interface for sending the access request to the proxy device determined by the load balancing logic, each proxy device being coupled to the file storage device (Figure 1, all; col. 15, line 66 to col. 16, line 66).

Asai does not specifically state that the proxy devices are arranged to perform malware scanning of files stored within a file storage device. In analogous art, Hailpern discloses another load balancing proxy server system which is arranged to perform malware scanning (i.e. virus scanning) of files stored within a file storage device (col.

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11, lines 16-60). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Hailpern with Asai since Asai discloses that the number of streams currently being distributed by the cache server can be reported to the cluster control unit 21, however other methods can be implemented (col. 24, lines 55-67). This would lead one of ordinary skill in the art to search for other methods of communicating load distribution information to the load balancing unit, eventually finding the system of Hailpern and its novel system of communicating load level information using the PICS protocol (col. 10, lines 40-64).

- 9. Referring to claim 2, Asai in view of Hailpern disclose the invention substantively as described in claim 1. Asai in view of Hailpern do not specifically disclose the dedicated file access protocol is the SMB protocol and the access requests are SMB calls issued to the file storage device. "Official Notice" is taken that both the concepts and advantages of providing for access requests using the SMB protocol are well known and expected in the art. It would have been obvious to one of ordinary skill in the art to incorporate the teaching of the SMB protocol to the combined system of Asai and Hailpern in order to provide another method to access the file storage system, thereby increasing the availability of the system to other devices using this protocol.
- 10. Referring to claim 3, Asai in view of Hailpern disclose the invention substantively as described in claim 1. Asai in view of Hailpern do not specifically disclose the dedicated file access protocol is the NFS protocol and the access requests are NFS

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calls issued to the file storage device. "Official Notice" is taken that both the concepts and advantages of providing for access requests using the NFS protocol are well known and expected in the art. It would have been obvious to one of ordinary skill in the art to incorporate the teaching of the NFS protocol to the combined system of Asai and Hailpern in order to provide another method to access the file storage system, thereby increasing the availability of the system to other devices using this protocol.

- 11. Referring to claim 4, Asai in view of Hailpern disclose the invention substantively as described in claim 1. Asai in view of Hailpern do not specifically state that the load balancing is arranged to poll each of the plurality of proxy devices and the access request to be sent to the first responding proxy device. "Official Notice" is taken that both the concept and advantages of providing for first response request handling is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to provide for first response request handling since Asai discloses that other methods of load balancing can be used (col. 24, lines 55-67), which would lead one of ordinary skill in the art to search for other methods of load balancing, eventually learning through common knowledge of the use of first response request handling.
- 12. Referring to claim 5, Asai in view of Hailpern disclose the invention substantively as described in claim 1. Asai in view of Hailpern do not specifically state that the load balancing is to apply a "round-robin" system of allocation. "Official Notice" is taken that both the concept and advantages of providing for round-robin request handling is well

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known and expected in the art. It would have been obvious to one of ordinary skill in the art to provide for first response request handling since Asai discloses that other methods of load balancing can be used (col. 24, lines 55-67), which would lead one of ordinary skill in the art to search for other methods of load balancing, eventually learning through common knowledge of the advantages of round-robin request handling in a distributed allocation system.

- 13. Referring to claim 6, Asai discloses the proxy device interface is arranged to receive a ready signal from each proxy device in said plurality indicating that proxy device is ready to receive an access request, the load balancing routing being arranged to refer to said ready signals when determining to which proxy device to direct a particular access request (col. 17, lines 10-47).
- 14. Referring to claim 7, Asai discloses each device is assigned an identifier (i.e. IP address, an inherent feature of any network), and the load balancing device is assigned the same identifier as is assigned to the file storage device (an inherent feature of a server-side proxy farm is that the gateway has the address on the Internet which is used for the content server, thereby ensuring that the load balancer is not bypassed to get to the content server), the client interface being connectable to a communication infrastructure (Figure 1, ref. 51) to enable communication between the load balancing device and said client devices, while the plurality of proxy devices are connectable to the proxy device interface (Figure 1, ref. 52), and the file storage device is connectable

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to each proxy device (Figure 1, ref. 53), such that the file storage device 30 is only accessible by said client devices 41-4n via said load balancing device 20 and one of said proxy devices 101-10n (col. 12, lines 38-67).

- 15. Referring to claim 8, Asai in view of Hailpern disclose the invention substantively as described in the claims above. Asai in view of Hailpern do not specifically disclose a plurality of file storage devices and the load balancing device being assigned multiple identifiers corresponding to the identifiers of the storage devices. However it has been held that it would be obvious to replicate features to produce repeated results. See St. Regis Paper Co. v. Bemis Co., 193 USPQ 8 (7th Cir. 1977). Furthermore it is well known that a device may have multiple addresses assigned to itself (i.e. a cache server may cache hits from a plurality of addresses mutually exclusive of any other server on the network). By this rationale it would have been obvious to provide multiple addresses for file storage devices in order to handle services pertaining to those servers.
- 16. Referring to claim 9, it is inherent to the system of Asai in view of Hailpern that each device is assigned an identifier (i.e. MAC address) unique from all others. Without this, network communications would be impossible since no computer would receive information directed to the computer.

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17. Claim 10 is rejected for similar reasons as stated above. Furthermore Hailpern discloses processing logic for causing selected malware scanning algorithms to be executed to determine whether the file identified by the access request is to be considered as malware (col. 10, line 11 to col. 62).

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Referring to claim 11, Asai discloses the invention substantively as described in 18. claim 10. Asai does not disclose determining which malware scanning algorithms should be selected for a particular file, each proxy device further comprising a scanning engine to execute the malware scanning algorithms by the processing logic. In analgous art. Hailpern discloses another proxy load balancing system which includes determining which malware scanning algorithms (i.e. IBM AntiVirus, processor type 15; or Microsoft Anti-Virus, processor type 5) should be selected for a particular file, each proxy device further comprising a scanning engine (Figure 3, ref. 2040) to execute the malware scanning algorithms by the processing logic (Figure 3; col. 10, line 11, to col. 11. line 65). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Hailpern with Asai since Asai discloses that the number of streams currently being distributed by the cache server can be reported to the cluster control unit 21, however other methods can be implemented (col. 24, lines 55-67). This would lead one of ordinary skill in the art to search for other methods of communicating load distribution information to the load balancing unit, eventually finding the system of Hailpern and its novel system of communicating load level information using the PICS protocol (col. 10, lines 40-64).

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19. Referring to claim 12, Asai in view of Hailpern discloses the invention substantively as described in claim 10. Asai in view of Hailpern further disclose each proxy device further comprises a file cache for storing files previously accessed by the client devices, upon receipt of an access request identifying a file to be read from the file storage device, the processing logic being arranged to determine whether the file identified by the access request is stored in the file cache and if so return the file to the client device via the load balancing device without communicating with the file store device via the second interface (Asai, Figure 3, ref. S124; col. 16, lines 44-63).

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20. Claims 16-27, 31-42 are rejected for similar reasons as stated above.

Claims 13, 28, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai in view of Hailpern as applied to the claims above, and further in view of Sathyanarayan et al. (USPN 6,304,904) (hereinafter Sathyanarayan).

21. Referring to claim 13, Asai in view of Hailpern disclose the invention substantively as described in claim 12. Asai in view do not specifically state that the file cache is arranged only to store files which have been determined not to be considered as malware. In analogous art, Sathyanarayan discloses another internet proxy system wherein the file cache is arranged only to store files which have been determined not to be considered as malware (i.e. scan the stream for predetermined content, and delete it

if found, and then cache the entry) (col. 5, lines 23-32). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Sathyanarayan with Asai and Hailpern since Hailpern discloses maintaining statistics regarding the reliabilities of the content sources and other aspects of the invention (col. 6, lines 1-5), however remains silent on what statistics are kept and how they are used. This would lead one of ordinary skill in the art to find other methods of statistical record keeping in a proxy server system, eventually finding the system of Sathyanarayan and its novel invention of collecting statistics from network devices and maintaining log files containing one or more entries associated with each request serviced (e.g. abstract).

22. Claims 28 and 43 are rejected for similar reasons as stated above.

Claims 14, 15, 29, 30, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai in view of Hailpern as applied to the claims above, and further in view of Webb et al. (US 2002/00833342) (Hereinafter Webb).

23. Referring to claim 14, Asai in view of Hailpern disclose the invention substantively as described in claim 10. Asai in view of Hailpern do not disclose the system is arranged to determine predetermined attributes, and to send those predetermined attributes to the file storage device to perform a validation check, only allowing those with sufficient rights to view the file. Webb discloses an authenticating network wherein the system is arranged to determine predetermined attributes (i.e.

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credentials in the form of a secure cookie), and to send those predetermined attributes to the file storage device to perform a validation check (i.e. check out the cookie stored on the client device), only allowing those with sufficient rights to view the file (p. 5, ¶ 48). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Webb with Asai and Hailpern to allow a form of security to the system, thereby reducing the likelihood of attacks from malicious users and attempts to hijack the server system.

- 24. Referring to claim 15, Asai in view of Hailpern disclose the invention substantively as described in claim 10. Asai in view of Hailpern do not disclose comprising a user cache for storing the attributes. Webb discloses an authenticating network which includes a user cache for storing the attributes (i.e. a secure cookie) (p. 5, ¶ 48). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Webb with Asai and Hailpern to allow a form of security to the system, thereby reducing the likelihood of attacks from malicious users and attempts to hijack the server system.
- 25. Claims 29, 30, 44, and 45 are rejected for similar reasons as stated above.

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### Response to Amendment

26. The Office has considered the amendments to claims 31-45. The rejection under 35 USC 101 has been withdrawn, however a new rejection under 35 USC 112, first paragraph has been issued.

### Response to Arguments

- 27. Applicant's arguments filed April 27, 2005 have been fully considered but they are not persuasive.
- 28. Applicant argues, in substance, that (1) the claimed invention of the instant application is different from the claimed invention of copending application no. 10/003,265 (hereinafter '265) since a passive load balancing mechanism as described in '265 is different from load balancing logic for applying a predetermined load balancing routine to determine to which proxy device to direct that access request, (2) the system of Hailpern does not disclose load balancing logic and therefore the systems of Asai and Hailpern would not be obvious to combine, (3) Asai does not disclose any malware scanning, and any malware scanning would be performed within Asai's content server in accordance with known techniques, (4) the combination of Asai and Hailpern are not directed to the same problem as the instant inventors, and as such it would not have been obvious to combine the references, (5) the combination of Asai in view of Hailpern do not disclose issuing access requests using a dedicated file access protocol.

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29. As to point (1), Applicant is correct in that the claimed language is not verbatim in both claims, however the interpretation of both limitations read upon one another. In '263, the passive load balancing mechanism provides load balancing by directing the access request to a predetermined proxy device. This is equivalent since the load balancing logic of the instant application applies a predetermined load balancing routine to determine to which proxy device to direct that access request. This is the same exact thing, just in different language. By this rationale, the rejection is maintained.

- 30. As to point (2) Applicant is incorrect in the rationale that Hailpern does not disclose load balancing logic. Applicant's attention is directed to the abstract, where it is stated that, "servers can determine processing various factors e.g. their current load condition...". This clearly shows that the system of Hailpern is directed to load balancing. By this rationale, the rejection is maintained.
- 31. As to point (3) Applicant is correct in that Asai does not disclose performing malware scanning, however is incorrect that any malware scanning would be done in the content server. As shown by Hailpern (and also admitted by Applicant, p. 16), it is well known that proxy servers can perform malware scanning. These proxy servers, regardless as to how they are organized, are equivalent to the cache servers (not the content server 30) of Asai, since both servers cache data for clients. Therefore the proxy servers of Hailpern and the teachings of the malware scanning can be implemented on the cache servers of Asai. Applicant also brought up the question as to

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the meta-information would have no use since the system of Asai is not a hierarchical proxy cache system, however Asai discloses that the cache servers can detect the state of distribution of the other cache servers (see abstract), therefore the meta-information of Hailpern can be utilized in order to forward information (such as load information) to the other cache servers. By this rationale, the rejection is maintained.

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As to point (4), although Applicant is correct in the recitation of Federal Circuit 32. case law. Applicant is incorrect that these references are nonobvious to combine. Applicant will understand that the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Hailpern with Asai since Asai discloses that the number of streams currently being distributed by the cache server can be reported to the cluster control unit 21, however other methods can be implemented (col. 24, lines 55-67). This would lead one of ordinary skill in the art to search for other methods of communicating load distribution information to the load balancing unit, eventually finding the system of Hailpern and its novel system of communicating load level information

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using the PICS protocol (col. 10, lines 40-64). By this rationale, the rejection is maintained.

33. As to point (5) Applicant will appreciate that the Examiner never stated that the combination of Asai in view of Hailpern disclosed using SMB or NFS protocol, rather "Official Notice" was taken. Since this was position was taken in the previous action, and not challenged by the Applicant in the previous response, it has been deemed Admitted Prior Art. See previous Office Action. Furthermore, Applicant will appreciate that HTTP is a protocol for transmission of text, however this text *is located in a file*. HTTP is a dedicated file access protocol since it access and transfers files over a network. By this rationale, the rejection is maintained.

#### Conclusion

34. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

35. The Examiner respectfully requests that the Applicant review the prior art thoroughly before drafting claim amendments. Applicant states that numerous typographical errors were made in the previous response, however "the context of the prior response" states the correct position of the Applicant. Applicant continues to make typographical errors in response (i.e. "in which elements of Hailpern does the Examiner believe the teachings of Hailpern could be implemented?"). These errors make it extremely difficult for the Office to ascertain as to the position of the Applicant and to formulate a response. Applicant is advised to proofread any response in order for these typographical errors to be kept to a minimum.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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**JEA** 

August 20, 2005

WILLIAM C. VAUGHN, JR. PRIMARY FXAMINED